



May 16, 2019

Mr. David Turner  
Federal Energy Regulatory Commission  
Office of Energy Projects  
Washington, D. C. 20426

Submittal via FERC Online eFile

RE: Docket P-4881-028, Accession Number 20190318-5128. Comments on Barber Dam Hydroelectric Relicensing Pre-Application Document from the Idaho Foundation for Parks and Lands

Dear Mr. Turner,

Thank you for your consideration of our study requests for the Barber Dam Hydroelectric Relicensing Project (the Project). The Idaho Foundation for Parks and Lands (IFPL) owns much of and manages lands surrounding the impoundment created by the Barber Dam, known as the Barber Pool Conservation Area and Wildlife Preserve. IFPL is Idaho's oldest land trust, handling over \$12 million in assets over its history, and has held a large part of the Barber Pool for nearly five decades. The 425-acre Barber Pool Conservation Area is one of the largest wildlife refuges in an American city. It is home to hundreds of species of wildlife, fish, and birds, including one of the last active nesting sites of bald eagles in Boise. Much of the material in the applicant's Pre-Application Document (PAD) describing the ecological setting for the Project, in fact, relied upon the Barber Pool Master Plan and study conducted by the US Army Corps of Engineers in 2002, which was arranged by the IFPL and others, including an organization known then as the Friends of the Barber Pool (2002 Master Plan).

Today, ecological enhancement, education, and management planning activities in much of the Barber Pool Conservation Area are carried out by IFPL and its standing subcommittee, the Barber Pool Advisory Council (BPAC). BPAC is composed of state, county, and city government agency representatives, as well as scientists, engineers, public outreach specialists, recreation specialists, sustainability experts, and engaged neighbors. Collaboratively, BPAC seeks to improve habitat for wildlife, encourage a stewardship ethic in the community, and provide educational opportunities for people to learn the ecological, geological, and human history of the area, to the extent that human activities do not conflict with the primary mission of wildlife habitat objectives.

Most of the land bordering the Barber Dam impoundment is part of the Barber Pool Conservation Area and Wildlife Reserve. During high flow events, the impoundment extends upstream nearly to the Highway 21 bridge. During typical summer flows the impoundment extends at least half way from the dam to the bridge.

As the stewards of this area, IFPL and BPAC are uniquely positioned to understand what studies are required, as well as to make our new studies and emerging plans available to Ada County throughout the FERC process. We appreciate the value the Barber Dam provides as an impoundment, supporting riparian habitat, especially in low-lying areas and adjacent to the channel where it would otherwise be uplands (or possibly developed). We understand and support the value of profitably operating the hydroelectric system to provide for ongoing maintenance of the dam structure.

With that context, we offer three proposals for additional studies to fill knowledge gaps in Project operations:

- **Vegetation (Attachment A):** BPAC is currently undertaking a vegetation study to update the 2002 Master Plan and provide greater detail regarding the distribution of plant communities. This new study and mapping will be housed on Ada County GIS servers, and the Applicants already know that it is available for their use. We propose a second year of a follow-on study to focus on areas targeted for restoration. These studies will provide information critical to maintaining and improving wildlife resources under the proposed operational scenario.
- **Hydrology and groundwater (Attachment B):** It is important to understand the hydrologic and groundwater levels expected to be maintained in a run-of-the-river scenario, where no changes to surface water elevation are planned. This is key to planning mitigation and enhancement projects. Currently, no monitoring wells exist in the zone of influence from the dam. Observation wells could also provide valuable information on shallow soil and geology that is necessary to determine the near-surface moisture behavior that is so important to vegetation.
- **Recreation and historical resources management (Attachment C):** The recreation impacts cited in the PAD did not fully account for local population growth, and did not include active permits to enhance recreational opportunities immediately adjacent to the Project area. The Applicants are missing a rich opportunity to conduct a study to enhance the cultural and historical stewardship of the area and provide community education and outreach. We suggest that such education is critical to ongoing operations and public acceptance of the Project into the future.

The proposed studies are described in Attachments A, B, and C to this letter, in accordance with the PAD and FERC guidelines. We welcome your questions and further discussion of these proposals. If you require further information, please contact our Executive Director, Jan Johns, by phone at (208) 344-7141, or via email at [jan@idaholands.org](mailto:jan@idaholands.org). Thank you again for your consideration, and we look forward to collaborating with the Applicants in carrying out these studies.

Sincerely,



Don Weilmunster, President  
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# Attachment A

## Vegetation Study Proposal

### Proposal

Conduct a vegetation study during the 2020 spring/summer/fall season, focused on up to four areas within the Barber Pool that are identified as high-potential habitat restoration projects. This “*Proposed 2020 Vegetation Study*” will build on a high-level vegetation mapping project currently taking place (the “*2019 Vegetation Study*”).

### Background

The Idaho Foundation for Parks and Lands (IFPL), along with its committee, the Barber Pool Advisory Council (BPAC), has contracted with Ecosystem Sciences (a professional firm in Boise, Idaho), to conduct baseline vegetation mapping. This project will be conducted spring, summer, and fall of 2019. The intent of the study is to update the vegetation mapping conducted in 2002 by the US Army Corps of Engineers in the Barber Pool Master Plan, prepared by the Corps, IFPL, and the Friends of the Barber Pool (the 2002 Master Plan).

BPAC has designed the *2019 Vegetation Study* in collaboration with Ada County Parks and Waterways, as well as Boise City Parks and Recreation. The County has offered to host the GIS mapping project results on its servers, and will have full access to the information which, as noted, borders most of the length of the Barber Dam impoundment. The information will also be made available to the Idaho Department of Fish and Game (IDFG), which holds high regard for the vegetation and habitat resources provided by the Barber Pool (adjacent to the Boise Front Wildlife Management Area). The study will be used to create a baseline map of existing conditions and target areas for ecological restoration projects.

Because of the proximity between the impoundment and the adjacent lands, the *2019 Vegetation Study* will provide information needed by the applicants for their license renewal, as a more complete approach than currently in the PAD. Further, Article 24 of the 1983 license required the Applicant to “Consult with USFWS and Idaho Department of Fish and Game (IDFG) to develop a wildlife mitigation plan, then file with FERC for approval.” The final language in the license is as follows:

Article 24. Licensee shall consult with the U.S. Fish and Wildlife Service and the Idaho Department of Fish and Game, in developing a wildlife mitigation plan. The plan shall be filed with the Commission, for approval, and shall consider (1) the timing of construction activities to avoid impacts to wintering bald eagles and nesting waterfowl; and (2) measures necessary to mitigate the loss of riparian habitat as a result of project construction. Agency comments on the plan shall be included in the filing. The Licensee shall not commence construction of any project structures until the plan is approved.

The final, approved plan was not identified in the PAD. However, this is an opportunity for the Applicants to understand how riparian habitat has changed and evolved over time, and consider how they might contribute to riparian vegetation and wildlife habitat improvements, today.

## Study Proposal Goals and Objectives

We request that the Applicants fund and perform a second, in-depth vegetation mapping and study of up to four targeted ecological restoration areas during the 2020 growth season (spring through fall), the “Proposed 2020 Vegetation Study.” Based on the results of BPAC’s 2019 Vegetation Study, we would expect to work with the Applicants to select the areas within the Barber Pool that offer the best potential for restoration success. The objectives of the *Proposed 2020 Vegetation Study* are as follows:

- Understand how keeping the Barber Pool at current levels influences the success or failure of black cottonwood stands.
- Identify areas where dredging, channel shaping, or other interventions could make significant contributions to habitat improvement.
- Prepare the in-depth mapping required to serve as the basis for future design documents for ecological restoration.

## Relevant Resource Management Goals and Public Interest Considerations

The IFPL 2002 Master Plan calls for implementation of habitat enhancement projects. As the Boise population grows, the viability of wildlife populations important to all of Idaho are threatened. During severe winters, the Boise River Wildlife Management Area (WMA) provides winter range for about 7,000 mule deer and several hundred elk. The Barber Valley is home to Idaho’s largest wintering deer herd, along with year-round resident deer. Hunting in Idaho generates \$319 million in retail sales, and \$536 million in a total multiplier effect. Hunting provides about 6,200 jobs, and \$4 million in state income taxes (*Economic Importance of Hunting in America*, International Association of Fish and Wildlife Agencies, 2001). Mule deer hunting in Idaho, in particular, results in direct expenditure of \$42 million for fuel, meals, and lodging. Based on this, Idaho Department of Fish and Game estimates that the economic impact of mule deer hunting is \$100 million, and creates more than 1,000 jobs (*Mule Deer Management Plan, 2008-2017*. Idaho Department of Fish and Game, 2008).

In recognition of this resource, Boise City designated wildlife corridors to maintain the connection between the Barber Pool and the WMA as the Barber Valley has been developed, representing an opportunity cost for developers (conversion of developable land to conservation) and a loss of tax base. Additionally, developments and landowners in the Barber Valley contribute to two ongoing wildlife mitigation funds: the Harris Ranch Wildlife Mitigation Association, and the Idaho Foundation for Fish and Wildlife. If ecological enhancement projects were to be identified in the Barber Pool, then IFPL could request matching funding for such projects from those organizations, or solicit grant funding from additional organizations.

Year-round, the Barber Pool is home to one of the last remaining bald eagle nest sites on the lower Boise River. More than 300 species are found in the Pool, which is an important stop for migratory birds. The Intermountain Bird Observatory is located at the upstream end of the Barber Pool and brings in hundreds of volunteers and school groups annually to observe, count, and band birds. The cottonwood forest on which many of these bird species depend has been in decline.

Additional investment in the Barber Pool and WMA has taken place in the form of the purchase of two properties: The Gateway Reserve, a 12-acre located immediately to the north of the Barber Dam Project

Boundary, and the Peace Valley Overlook, which abuts the Maynard Gulch Wildlife Corridor. Both of these purchases were funded by more than 400 individual, private donors; and the investment in both properties exceeds \$2.7 million. IFPL has launched a campaign to fund acquisition of the Gregerson Parcel, on the north side of the Boise River at the base of the Maynard Gulch corridor, which will again rely on the generosity of neighbors and concerned citizens.

Restoring and enhancing vegetation and wildlife habitat of the Barber Pool—while fully accounting for the planned operational regime by the Project applicants—would support the private and public investments in the broader WMA area and Barber Valley developments. Such activities would also align with the types of activities anticipated in Article 24 of the current license for the Barber Dam.

## Existing Information and the Need for Additional Information

The Barber Dam Pre-Application Document (PAD) relied heavily upon the vegetation studies conducted for the 2002 Master Plan, which needs to be updated. New, invasive plant species have recently been identified in the Barber Pool. Species abundance has changed dramatically since the 2002 study, as is particularly evident in the decline of black cottonwood stands. This, in turn, adversely affects nesting sites for bald eagles and other raptors, as well as other bird and wildlife species. The *2019 Vegetation Study* being conducted is an important first step in characterizing opportunities for restoration, but additional study will be needed in order to plan specific restoration projects. The Barber Dam Project Applicants will benefit from the *2019 Vegetation Study*, and the additional work for the *Proposed 2020 Vegetation Study* will help both IFPL and the County to fully characterize the area and opportunities.

## Nexus between Project Operations and Effects

The Barber Pool is a human-created area, existing solely as a result of the presence of the Barber Dam. Much of the lowest elevation sandy soil in the Barber Pool was deposited when Barber Dam was about 8 feet higher than its current elevation. The current Barber Dam impounds water well into the Barber Pool area during the summer and nearly to the Highway 21 Bridge during flood flows. The Pool also sits in an area of critical wildlife importance, where the Boise Front WMA meets the Boise River. Although the Pool is ultimately a human construct, it has become a critical refuge for wildlife year-round. In other words, the result of Project operations has been the creation and ongoing existence of the Barber Pool wildlife area.

This nexus creates opportunities to collaborate on areas of mutual interest. IFPL's interests are stated in the 2002 Master Plan, which includes control of invasive plant species, habitat restoration, and sustaining and enhancing wildlife populations and raptors. In Article 24 of the current license for hydropower production, wildlife mitigation was mentioned; presence of wildlife depends upon quality habitat. Additionally, the Applicants (particularly the County) have an interest in controlling noxious weeds; to do this, it is necessary to map the current distribution of vegetation types.

## How Study Results Inform Development of License Requirements

Choosing to operate the project as a run-of-the-river facility does not mean that the area will remain unchanged, as assumed in the PAD. Under current operations, the black cottonwood forest has declined significantly, even since 2002. This decline is expected to continue in the future because most of the areas that support cottonwoods are 6 to 10 feet above the summer-time pool elevation. Furthermore,

high spring flows are also not high enough to create conditions suitable for cottonwood regeneration, unless the area is re-shaped and re-contoured to hold water in targeted areas during high flow events. The PAD indicates that periodic flooding of the Barber Pool relies more on flows from Lucky Peak than operations at the Barber Dam. While this is true, it is also true that installing a bypass to assure downstream flows, adding fish passage, or other actions contemplated during the relicensing process could continue to exacerbate or worsen the prospects for survival of the black cottonwood overstory and its dependent species. To provide adequate context for evaluating those operational actions, the Applicants need to use a more current vegetation data set than what is available in the 2002 Master Plan. Collaborating on vegetation studies would enable the Applicants work with IFPL to identify restoration areas that will be sustainable going forward.

## How Proposed Study Methodology is Consistent with Accepted Scientific Practice

The *2019 Vegetation Study* includes collecting, reviewing, and editing all existing data, including imagery and LIDAR, and combining it into a GIS database. From there, a draft land cover layer will be created using ESRI's ArcGIS suite of products to derive input raster layers, such as vegetation height, and NDVI. The land cover layer will be attributed using cover types and strata defined collaboratively by the IFPL BPAC, Ada County Parks and Waterways, and Boise City Parks and Recreation. Next, the data will be field-verified using ESRI's collector app; the verification will focus on cover type, canopy cover, and vegetation density (using vertical densitometer), and square meter cover estimates (for ground cover). The mapping will then be refined based on field collected data and attributes with cover type, cover class, and species information. Metadata will be created for all layers derived in the land cover mapping process.

IFPL would recommend that the follow-up *Proposed 2020 Vegetation Study* study hone in on fieldwork for up to four areas selected by evaluating the vegetation cover types in the first study. Site selection would be indicated by areas with a high potential for restoration actions identified during the *2019 Vegetation Study* and existing groundwater elevation and land contour data.

IFPL would want to collect data in a similar manner as the field-collected data for the current study, using ESRI's collector app on a Juniper Systems handheld or equivalent. Qualified botanists should perform the study, or University-level students trained in plant identification under the supervision of an experienced scientist.

## Considerations of Level of Effort and Cost

Thankfully, technology has helped to make these studies much more economical than in the past. The *2019 Vegetation Study* will be completed for less than \$10,000. As described in the previous section, this study covers the Barber Pool, Ada County property, and Gregerson parcel—for a total of 475 acres—and relies on a combination of satellite imagery and ground-truthing. As noted, these lands border the Barber Dam impoundment. We would anticipate that the *Proposed 2020 Vegetation Study* would include more on-the-ground hours, but over a limited acreage. The *2019 Vegetation Study* approach (such as mapping classifications) was developed in collaboration with Ada County Parks and Waterways and Boise City Parks and Recreation, and is funded by IFPL. The data will be housed on Ada County's GIS system and will therefore be fully available to the Applicants.

For the *Proposed 2020 Vegetation Study*, IFPL would anticipate again working closely with the County and City to scope the project, identify what targeted areas we would cover, and come up with a scope and cost that are acceptable to the Applicants.

The *2019 Vegetation Study* will provide a robust baseline for IFPL and the Applicants. However, it is only the beginning of what is needed to plan sustainable restoration projects. By undertaking the *2019 Vegetation Study*, IFPL is taking an important first step towards improving conditions for wildlife and in providing information needed by the applicants to describe the current existing conditions adjacent to the Barber Dam impoundment. Thank you for considering this proposal to take the next step: identify likely restoration areas and conduct a more in-depth evaluation of vegetation resources in those areas.

# Attachment B

## Hydrology and Groundwater Study Proposal

### Proposal

Install shallow monitoring wells and conduct a groundwater, hydrology, and soil/geologic study to characterize the expected hydrologic regime under the proposal to keep operations consistent. No monitoring wells nor groundwater mapping currently exists.

### Background

The Idaho Foundation for Parks and Lands (IFPL), along with its committee, the Barber Pool Advisory Council (BPAC), has a crude understanding of site hydrology and groundwater resources as a function of surface expression of vegetation. The Barber Dam Pre-Application Document (PAD) relied heavily upon the natural resource characterization in the Barber Pool Conservation Area Master Plan, created in 2002 by the US Army Corps of Engineers, IFPL, and the Friends of the Barber Pool (the 2002 Master Plan). The 2002 Master Plan identified the need for additional scientific study of groundwater and hydrologic resources, stating:

“A lowered water table and regulated water regime have limited cottonwood regeneration within the BPCA.... Natural cottonwood regeneration and protection of wetlands are desirable goals to improve the health and function of the BPCA ecosystem. Old growth cottonwoods provide perching and roosting areas for wintering bald eagles; and provide nest cavities for woodpeckers, owls, and other birds. Wetland and riparian areas attract insects, which are essential to some songbirds. Riparian areas also provide important habitat and cover for waterfowl, reptiles and amphibians, and other wildlife.”

“Implementation: Improve wetland areas by deepening channels to the elevation of existing hydrology. Encourage scientific study to learn more about the resource. Work with Barber Dam interests to study modifications to Barber Dam...and the possibility of promoting groundwater recharge and improved riparian ecology without detriment to current structures and property.”

To enable projects that would “deepen channels [and other surfaces] to the elevation of existing hydrology,” IFPL needs to better understand the hydrologic regime that could enhance the operational requirements for the Barber Dam Hydroelectric Project (the Project).

Currently, there are no shallow monitoring wells in the zone of influence related to the regulated water surface elevation on the dam and, the zone of influence is largely an estimate made from topographic data. A series of shallow wells (on the order of 3 to 15 feet in depth) at regular intervals from the dam upstream and laterally towards the north and south could help determine the local groundwater systems and their behavior associated with the surface hydrology. In addition, carefully located observation wells would also provide valuable information on shallow soil and geology which is necessary to determine the near-surface moisture behavior so important to vegetation. Without this

information, determining the importance of the dam to the Barber Pool Conservation Area and Wildlife Reserve would largely be an educated guess.

## Study Proposal Goals and Objectives

The goal of the proposed study is to gain a better understanding of soil-water availability throughout the site to support habitat restoration projects. Study objectives include the following:

- Understand how keeping the Barber Pool at current levels influences the hydrologic regime for the majority of the year.
- Identify areas where groundwater is sufficient to maintain healthy vegetation, and where re-contouring may be necessary to expand vegetation access to water. A determination of soil type along with groundwater is a requirement to assessing current health and in developing sustainable restoration projects.
- Prepare the in-depth mapping required to serve as the basis for future design documents for ecological restoration.

## Relevant Resource Management Goals and Public Interest

### Considerations

As described in Attachment A, *Vegetation Study Proposal*, the IFPL 2002 Master Plan calls for implementation of habitat enhancement projects, which depend upon the availability of water. The Barber Pool serves a critical ecological function, adjacent to and connected with the Boise Front Wildlife Management Area (WMA). The WMA consists primarily of dry, upland habitat, and the riparian habitat offers an important resource for wildlife. This importance was recognized by Boise City in development planning for the Barber Valley and designation of wildlife corridors and by requiring developers to create funding mechanisms for wildlife mitigation, in perpetuity, as property is bought and sold. Investment in the area has been significant on the part of local agencies, landowners, and neighbors.

Further, IFPL is investing in water rights for the Barber Pool. IFPL is purchasing 180 acres of water rights that are coming online over the next few years, in batches. This investment is being made by IFPL to assist with habitat enhancement. The Applicants could support by helping IFPL to identify the best use of this water to provide the greatest opportunity for hydrologic benefit, cottonwood and shrub restoration, and habitat enhancement.

Restoring and enhancing the Barber Pool—while fully accounting for the planned operational and hydrologic regime by the Project applicants—would support the private and public investments in the broader WMA area and Barber Valley developments. Such activities would also align with the wildlife mitigation expectations of the Barber Dam when it was redeveloped for hydropower and the current license was issued.

## Existing Information and the Need for Additional Information

The Barber Dam Pre-Application Document (PAD) relied heavily upon the natural resource studies in the 2002 Master Plan. This Plan did not fully characterize groundwater resources and the hydrologic regime, but rather relied on visual observations of surface water and plant life. As described in Attachment A, *Vegetation Study Proposal*, IFPL is currently undertaking a vegetation study. Additional information

regarding groundwater elevations and the hydrologic regime is necessary to identify potential restoration areas and target areas for wetland development.

## Nexus between Project Operations and Effects

Project operations have a direct effect on the hydrology and groundwater resources of the Barber Pool. As described in Attachment A, *Vegetation Study Proposal*, the result of Project operations has been the creation and ongoing existence of the Barber Pool wildlife area. Choosing to operate the facility as run-of-the-river in its current structural configuration, as indicated in the PAD, means that structural changes to the dam, itself, are not under consideration. The result of the decision to operate the Barber Dam under its current configuration needs to be well-understood so that restoration projects can be appropriately sited and self-sustaining going forward.

## How Study Results Inform Development of License Requirements

Choosing to operate the project as a run-of-the-river facility does not mean that the area will remain unchanged, as assumed in the PAD. Under current operations, the black cottonwood forest has declined as a result of groundwater levels. The PAD indicates that periodic flooding of the Barber Pool relies more on flows from Lucky Peak than operations at the Barber Dam. While this is true, it is also true that installing a bypass to assure downstream flows, adding fish passage, or other actions contemplated during the relicensing process could influence groundwater and continue to exacerbate or worsen the prospects for survival of the black cottonwood overstory and its dependent species. To provide adequate context for evaluating those operational actions, the Applicants need to better understand the current hydrologic conditions.

## How Proposed Study Methodology is Consistent with Accepted Scientific Practice

A groundwater study would place a series of inexpensive wells consisting of plastic pipe to depths ranging from a few feet to about 15 feet located to at intervals to create a groundwater level monitoring network throughout the pool. The well density of the network would initially be large, on the order of 1,000 feet, consisting of approximately 20 wells with a slightly higher density along the south and north to account for hillslope contribution. The well locations would be chosen not only for groundwater, but for soil/geologic mapping purposes in association with vegetation studies since material removed for well construction would provide valuable information on the stratigraphy of the soil. The well locations would be surveyed, and reference benchmarks established to enable accurate readings over a long period and to serve as references in case reconstruction of the wells are needed. Static water level measurements would be made during stable river flows and during seasonal periods where hillslope hydrology influences from irrigation and canal diversions can be determined from periods of non-irrigation and no canal diversion. Therefore, initial monitoring would be during 3 to 4 times in the first year, which would result in 60 to 80 measurements. GPS surveying techniques would be used to establish the benchmarks by a licensed surveyor.

## Considerations of Level of Effort and Cost

Based on professional expertise within the BPAC group, the proposal below is thought to be the most cost-effective approach to gain the needed information on surface-groundwater hydrology and associated soil-water relationships. Of course, study objectives would need to be refined, a scope prepared, and bidding conducted; but this provides a rough order of magnitude estimate.

Well materials (pipe, sand, other packing if needed) - \$50/well	\$ 1,000.00
Benchmark materials, (\$20/well)	\$ 400.00
Well installation and soil (contract) \$300/well	\$ 6,000.00
Well surveying & monument installation \$300/well	\$ 6,000.00
Monitoring round (\$1,000/round)	\$ 4,000.00
Preparation of groundwater map and moisture map	\$ 2,000.00
<b>Estimated Total</b>	<b>\$19,400.00</b>

# Attachment C

## Recreation and Historical Resources Management Study

### Proposal

Conduct a recreation and historical resources management study that accounts for current and projected population growth in the immediate area. The objectives of the study would be to evaluate and describe partnership opportunities to provide improved historical interpretation, and identify ways in which neighbors could be engaged to become stewards of the historical, cultural, and ecological aspects of the Barber Dam and the Barber Pool.

### Background

The Idaho Foundation for Parks and Lands (IFPL) intends to continue to manage the Barber Pool as a wildlife preserve, and precludes human entry from the vast majority of their ownership, unless for scientific or educational purposes and only when such uses do not disturb wildlife. In order to assure future stewardship of the area and encourage respect for the closure, IFPL recognizes the need to inform the public of the ecological and historical value of the area and to cultivate a stewardship ethic among the community. The Barber Pool Advisory Council (BPAC), a committee of the IFPL, has as part of its directive to perform education and outreach activities in collaboration with adjacent landowners. These landowners include Ada County, Boise City Parks and Recreation, the Intermountain Bird Observatory (IBO), and the Idaho Shakespeare Festival. BPAC also coordinates educational opportunities with local organizations, such as the Barber Valley Neighborhood Association (BVNA) and the Harris Ranch Wildlife Mitigation Association (HRWMA).

The Barber Pool Conservation Area is bordered on the North side of the river by the Ada County Greenbelt and the planned Sue Howell Park. These offer opportunities for viewing the Pool and learning about it. The Gateway Reserve, in development, immediately abuts the north border of the Barber Dam Project Area, and is intended to offer walking and biking trails, as well as bird blinds and overlooks into the Barber Pool. Further to the north and across Warm Springs Avenue, the Peace Valley Overlook, purchased in a fundraising effort led by neighbors, offers an overview of the Barber Dam and pool area. The IBO offers classes and brings hundreds of volunteers and schoolchildren to the area.

All of these activities, coupled with growth in the Barber Valley, provide both threats and opportunities. Threats are already in evidence. Vandalism and trespass has increased markedly in the past 5 years. People create ad-hoc trails that contribute to erosion of the Ada County Greenbelt pathway, and they allow their dogs to run off-leash in the Barber Pool and harass wildlife. The risk of fire has increased with the presence of teenagers and fireworks; at least two fires have been sparked—and thankfully, quickly controlled—in the past 5 years.

At the same time, these human activities and growth provide the opportunity to educate the public about the value of the Barber Dam and the history of the area, as well as cultivate a community who cares about this resource. Whether or not the opportunity side is realized depends a great deal upon our collective ability to communicate a consistent message of stewardship and caring. The purpose of this study is to lay the foundation for determining whether or how the Project Applicants could engage in sharing this message (including outreach, signage, and other resources), which should also contribute to public support for the Barber Dam, itself, going forward.

## Study Proposal Goals and Objectives

The Pre-Application Document (PAD) for the Barber Dam Hydroelectric Relicensing Project (the Project) had two notable gaps:

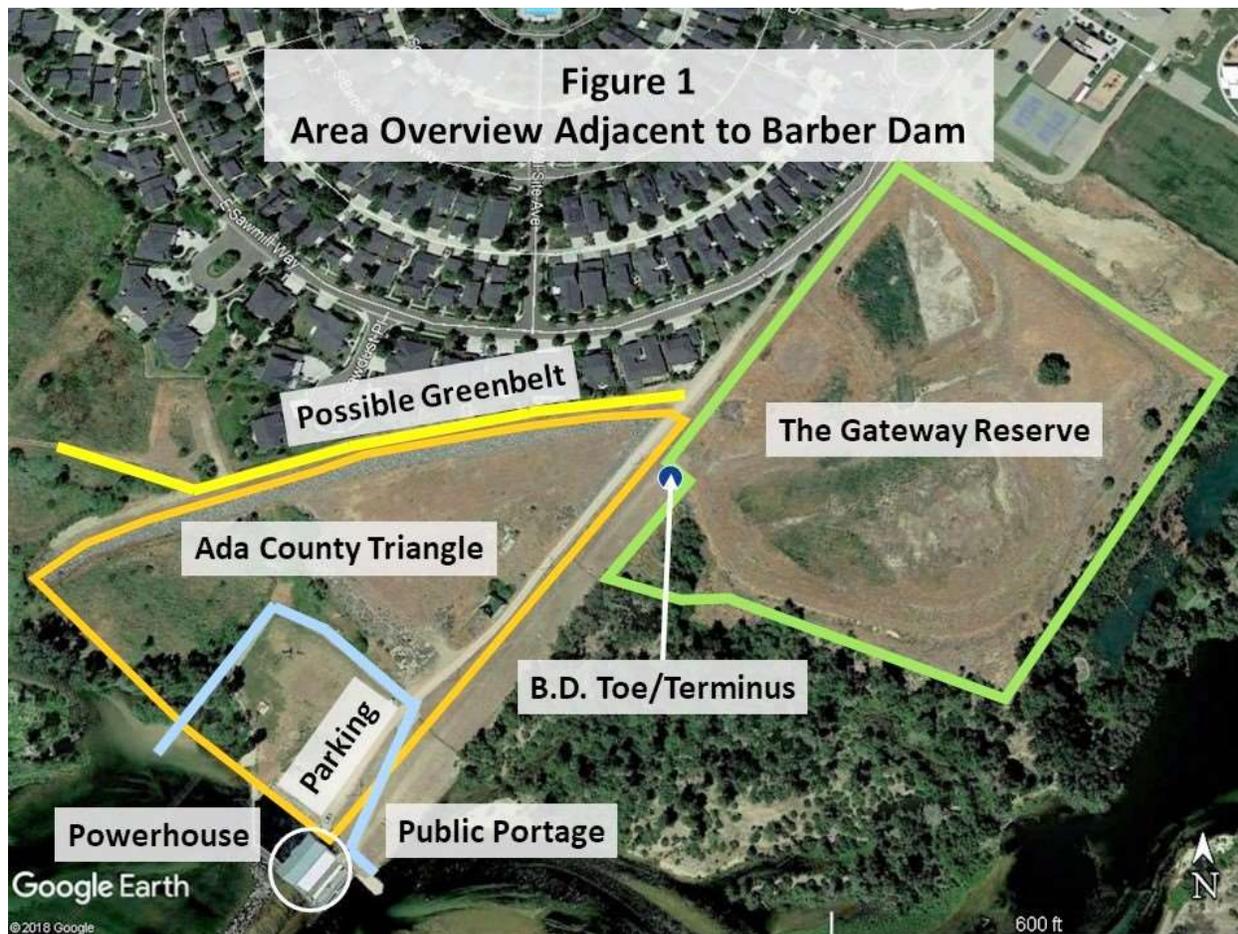
1. The PAD did not adequately describe the buildout of the Barber Valley, which is currently at about 50 percent of planned development. The PAD does not anticipate additional recreational use, as well as pressure on open space, private lands, and historical features. Local observations by IFPL and neighbors indicate much higher levels of use throughout the area than described in the PAD.
2. The PAD acknowledged that existing historical resources in the area have not been fully characterized nor interpreted for the public. Yet, the PAD did not propose additional studies to remedy this gap.

IFPL proposes that the Applicants conduct a Recreation and Historical Resources Management Study. The goal would be to characterize the future use of the area and assess the opportunity to provide historical information and preservation of site assets and structures. Objectives include the following:

- Document the anticipated population growth in the area, and use existing recreation and trails data collected by Ada County Parks and Waterways and Boise City Parks and Recreation to better characterize recreational use.
- Evaluate permitted plans for The Gateway Reserve, a new recreational and educational amenity immediately adjacent to the Project Area. Understand how this will bring people to the area.
- Evaluate and describe opportunities to provide improved historical interpretation and engage with the rapidly expanding population of the Barber Valley. Identify ways in which neighbors could become stewards of the area. Identify potential partners for interpreting and preserving the historical and ecological resources.

## Relevant Resource Management Goals and Public Interest Considerations

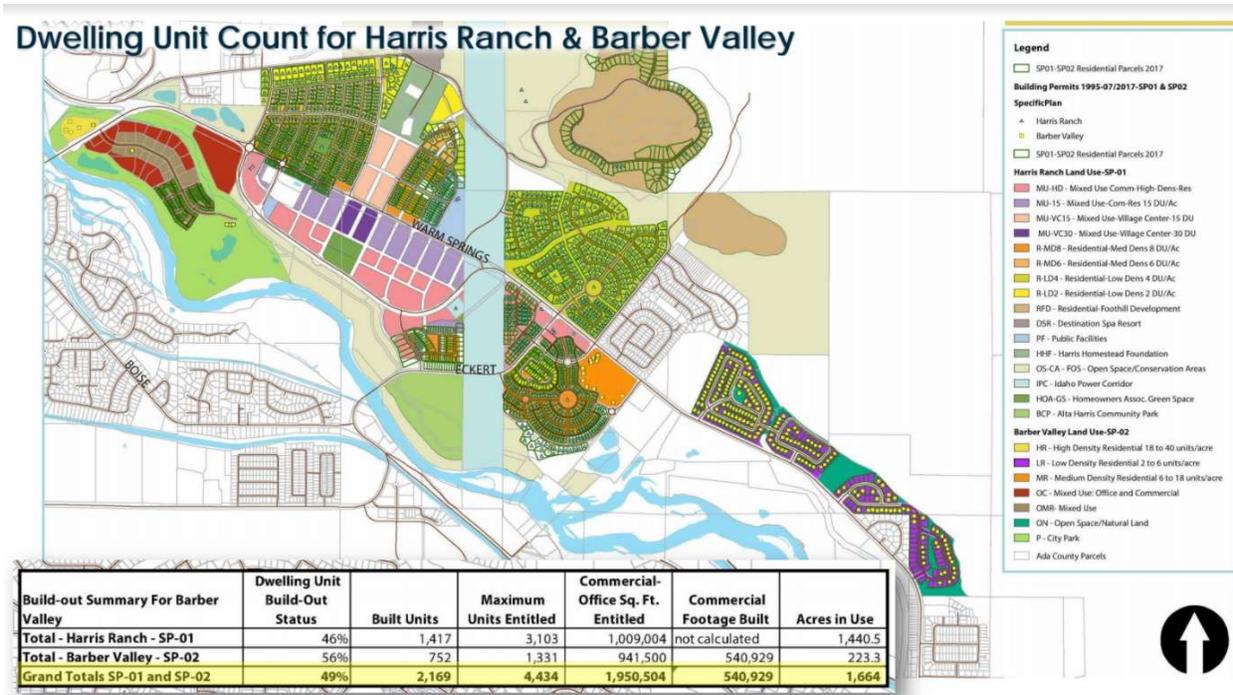
In 2013, the IFPL and the Idaho Shakespeare Festival acquired a 12-acre parcel of land, now known as The Gateway Reserve, immediately to the north of the Barber Dam Project Area (see Figure 1). The site was protected from proposed development, and the City of Boise has approved plans to regrade and plant the area principally as a natural, educational enhancement area adjacent to the Idaho Shakespeare Festival grounds and Riverstone International School. Development of this area, along with routing a future proposed pathway associated with the Boise River Greenbelt through the area, will doubtless bring increased visitation to the site. This increased use could also be expected to create more interest in and access to historical features related to the former sawmill, as described in the PAD.



It is not just The Gateway Reserve that promises to bring more people; it is the planned and permitted development in the Barber Valley Area. According to the City of Boise, as of 2017, the Barber Valley area was only built out to 50% of the total number of units permitted in the Specific Plan 1 and 2 ordinances. Total, entitled residential buildout is 4,434 units. If only two people are assumed per household, that is a population of nearly 10,000 people at buildout. At a four-person household, the population projection soars to 18,000 people. In other words, the population level of a small Idaho town will be concentrated in this area. The planned developments are shown in Figure 2.

Beyond the units currently permitted by the two Specific Plan ordinances, areas that were not included in these plans are also being developed. Such developments as Barber Hills Vistas, Finis Terra, Privada Estates, and Pheasant lane, which are adding hundreds of units beyond the large-scale planned developments. Not only are they bringing more people to the area, these residential developments are also populated by dogs and cats, which add to the burden that wildlife endures (especially in terms of recreating with dogs, such as taking dogs off-leash or swimming in the reservoir).

Figure 2: Planned and Permitted Buildout of Specific Plans 1 and 2 in the Barber Valley



As described in Attachment A, new neighbors do see value in preserving open space. More than 400 individual, private donors have invested over \$2.7 million to acquire The Gateway Reserve the Peace Valley Overlook, conveying both properties to public open space. IFPL has launched a campaign to fund acquisition of the Gregerson Parcel, on the north side of the Boise River at the base of the Maynard Gulch wildlife corridor, which will again rely on the generosity of neighbors and concerned citizens. Both of these campaigns required education and outreach; similar efforts will be needed to cultivate a stewardship ethic and manage recreation appropriately.

### Existing Information and the Need for Additional Information

Existing information regarding recreational use in the study area is limited. To IFPL’s knowledge, the most robust, science-based information is from the Greenbelt use study, available from Ada County Parks and Waterways. As indicated in the PAD, no formal studies have been completed of use of the portage at Barber Dam, nor of the area in general. BPAC members have observed people making more use of the area, including taking dogs down to the put-in area to swim, using it as an access to fish or play in the river, and to look at the dam and powerhouse structures. A more robust understanding of the current use patterns is needed to plan for the future.

### Nexus between Project Operations and Effects

The same effects that IFPL sees on its property—including ad-hoc trail development, vandalism, lack of respect for resources, and potential for fire—all exist for the Project Site, itself. Operations at the Barber Dam can be imperiled by not adequately accounting for human presence. On the flip side, the Barber

Dam site has the opportunity to become a treasured resource, an area where children can appreciate nature and history, and a valued asset within the community.

In short, the area needs to be managed so as not to be loved to death.

## How Study Results Inform Development of License Requirements

The Applicants have done a tremendous job in preserving the historic structure, in accordance with the current license. This same approach could be extended to the other historic resources in the immediate area. Article 25 of the current license required the Applicants to “Consult with the Idaho State Historic Preservation Office (SHPO) to develop a cultural mitigation plan, then file with FERC for approval.” Most of the plan focused on construction rather than operation. This is an opportunity for the Applicants to understand how the ongoing operations could contribute to helping to better direct recreational use and historic appreciation for the structure and surrounding area.

## How Proposed Study Methodology is Consistent with Accepted Scientific Practice

The study methodology should be done in accordance with standard approaches for assessing use. Such approaches could include a camera at the portage to capture use numbers, Greenbelt user surveys in the immediate area, counts of people accessing undeveloped trails from the greenbelt at known points, and an evaluation of historical and cultural resource interpretation opportunities. The study should follow the Three R's: Relevant, Reliable, and Replicable.

## Considerations of Level of Effort and Cost

The level of effort and cost would need to be scoped for this effort. IFPL has not conducted initial scoping for such an effort. However, IFPL would note that some of this work is already done. Historical studies have been completed as part of the Harris Ranch development process; Ada County Parks and Waterways and Boise City have data on Greenbelt and Trails usage; and a professional placemaking study was completed with the Barber Valley Neighborhood Association (the City-designated neighborhood association for the area) that could provide valuable information. Additional work would need to be done to characterize current levels of use, but this could be done with University students under the supervision of professionals (such as counting people accessing the area from the Greenbelt at known points, using aerial photography or drones to identify ad-hoc trail creation, etc., using similar methodology as employed by the City of Boise in foothills trail user counts and trespass assessments). Much is available to build upon, but more work is necessary to put all the pieces together for the Project Area and its area of immediate impact. BPAC is currently working with City and County parks agencies and partners like Idaho Shakespeare Festival, Intermountain Bird Observatory, and the Barber Valley Neighborhood Association to understand and plan for aligned signage and nodes of human activity, and would be happy to contribute any existing information to the proposed study, which ultimately would support our efforts as well to proactively manage the area.